

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE OF PAGES

1

2. AMENDMENT/MODIFICATION NO.

0001

3. EFFECTIVE DATE

8/21/03

4. REQUISITION/PURCHASE REQ. NO.

W25PHS-3196-1485

5. PROJECT NO. (If applicable)

6. ISSUED BY

CODE

7. ADMINISTERED BY (If other than Item 6)

CODE

US ARMY CORPS OF ENGINEERS, PHILADELPHIA
WANAMAKER BUILDING, 100 PENN SQUARE EAST
PHILADELPHIA, PENNSYLVANIA 19107-3390

MICHELLE BERTOLINE, 215-656-6914

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

(✓)

9A. AMENDMENT OF SOLICITATION NO.

DACW61-03-B-0019

X

9B. DATED (SEE ITEM 11)

4 AUGUST 2003

10A. MODIFICATION OF CONTRACTS/ORDER NO.

10B. DATED (SEE ITEM 13)

CODE

FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

X

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

BEACHFILL, ABSECON INLET TO GREAT EGG HARBOR INLET, ATLANTIC CITY & VENTOR CITY, NEW JERSEY

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(✓)

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

THIS AMENDMENT DOES NOT EXTEND THE BID OPENING DATE OF 3 SEPTEMBER 2003 AT 2:00 P.M.

(CONTINUED ON NEXT PAGE)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED

(Signature of person authorized to sign)

(Signature of Contracting Officer)

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14. DESCRIPTION OF AMENDMENT (continued)

a. SECTION 00800 - SPECIAL CONTRACT REQUIREMENTS:

NOTE: The following sections were amended. For simplicity, the complete section is being reissued to enable complete substitution/insertion of the section in existing hard copies. To make detection of changes easier, only those pages with changes on them are annotated with "Amendment No. 0001" in the upper right corner. In addition, changes on a page are highlighted in ***bold italics***.

(1) TABLE OF CONTENTS, SPECIAL CONTRACT REQUIREMENTS - Please delete the TABLE OF CONTENTS, SPECIAL CONTRACT REQUIREMENTS, in its entirety and substitute the new page of the same number, annotated Amendment No. 0001, attached hereto.

(2) SECTION 00800 - SPECIAL CLAUSES - Please delete Section 00800 in its entirety and substitute the new Section of the same number, annotated Amendment No. 0001, attached hereto.

(3) SECTION 00875 - SURVEY DATA FORMAT- Please add Section 00875 to the Specifications, annotated Amendment No. 0001, attached hereto.

b. TECHNICAL SPECIFICATIONS:

(1) Section 01330 - SUBMITTAL REGISTER: Please delete the Submittal Register in its entirety and substitute the new Submittal Register, annotated Amendment No. 0001, attached hereto.

(2) Sections 01010 SUMMARY OF WORK, 01500 TEMPORARY CONSTRUCTION, 01720 SURVEY REQUIREMENTS, 02390 BEACHFILL, 02500 DUNE CROSSOVERS: Please delete these sections in their entirety and substitute the new sections of the same numbers, annotated Amendment No. 0001, attached hereto.

c. CONTRACT DRAWINGS:

(1) Drawing Nos. 58546, 58547, 58552, 58553, 58554, 58555, 58561, 58562, 58564, 58565, and 58567 - Please delete these drawing numbers in their entirety and substitute the revised sheets, of the same Drawing Numbers, with a revision date of 20 Aug 2003, attached hereto.

(2) Please make the following pen and ink change to Drawing Number 58575: Change the maximum depth of dredging activities for Borrow Area F from "-20" to "-15" feet NAVD88.

(3) Please make the following pen and ink change to Drawing Number 58551: Add the text "ALBANY AVENUE" next to "CONTRACTOR ACCESS" along the street between Hartford Ave. and Roosevelt Ave.

d. Please indicate receipt of this amendment on Standard Form 1442 (SOLICITATION, OFFER, AND AWARD) as Amendment No.0001. Failure to acknowledge all amendments may be cause for rejection of the bid.

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TABLE OF CONTENTS
SPECIAL CONTRACT REQUIREMENTS

00800	SPECIAL CLAUSES
00805	CONTRACT ADMINISTRATION
00815	WAGE RATES
00835	REGIONS FOR THE CONSTRUCTION EQUIPMENT OWNERSHIP AND OPERATION EXPENSE SCHEDULE
00840	PROJECT AND SAFETY SIGN LAYOUT
00845	SURVEY CONTROL DESCRIPTION SHEETS
00855	VIBRACORE SAMPLE GRAIN SIZE DISTRIBUTION CURVES
00865	GRAIN SIZE DISTRIBUTION (NAD Form 2087)
00875	<i>SURVEY DATA FORMAT</i>
00890	LOCATIONS OF QUANTITY SURVEY CROSS SECTIONS

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SECTION 00800
SPECIAL CLAUSES
INDEX

PARA	TITLE
SC-1	COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK
SC-2	LIQUIDATED DAMAGES - CONSTRUCTION
SC-3	CONTINUING CONTRACTS
SC-4	CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS
SC-5	PHYSICAL CONDITIONS
SC-6	DAMAGE TO WORK
SC-7	LAYOUT OF WORK
SC-8	PERFORMANCE OF WORK BY THE CONTRACTOR
SC-9	ENVIRONMENTAL LITIGATION
SC-10	SIGNAL LIGHTS
SC-11	QUANTITY SURVEYS
SC-12	INSPECTION
SC-13	ACCOMODATIONS AND MEALS FOR GOVERNMENT INSPECTORS
SC-14	EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE
SC-15	PERFORMANCE EVALUATION OF CONTRACTOR
SC-16	INSURANCE REQUIREMENTS
SC-17	TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

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SECTION 00800

SPECIAL CLAUSES

SC-1 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK

The Contractor shall be required to (a) commence work under this contract within 10 calendar days after the Contractor receives the notice to proceed, **and commence actual production/pumping under this contract within 60 calendar days after the Contractor receives notice to proceed**, (b) prosecute the work diligently, and (c) complete the Base Bid work ready for use not later than **210** calendar days after the date the Contractor receives the notice to proceed for the Base Bid. **Notice to proceed for the Base Bid shall be issued within 90 days of award of this contract.**

Options 1, 2, and/or 3: The Contracting Officer has the right to exercise Options 1, 2, and/or 3 within 90 calendar days after the Contractor receives the notice to proceed for the Base work. The period of performance of the contract will not be extended for the award of Options 1, 2, and/or 3 and the Options 1, 2, and/or 3 work shall be completed concurrently with Base work.

Options 4, 5, and/or 6: The Contracting Officer has the right to exercise Options 4, 5 and/or 6 within **180** calendar days after the Contractor receives the notice to proceed for the Base work. The period of performance of the contract will be extended **90** calendar days for the completion of Option 4 work. The period of performance of the contract will not be extended for the award of Options 5 and/or 6 and the Options 5 and/or 6 work shall be completed concurrently with Option 4 work.

The times stated for completion shall include final cleanup of the premises.

SC-2 LIQUIDATED DAMAGES - CONSTRUCTION (APR 1984)

a. If the Contractor fails to complete the work within the time specified in the contract, or any extensions thereof, the Contractor shall pay to the Government as liquidated damages, the sum of \$1,330.00 for each calendar day of delay.

b. If the Government terminates the Contractor's right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the Government in completing the work.

c. If the Government does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted. (FAR 52.211-12)

SC-3 CONTINUING CONTRACTS (MARCH 1995 EFARS)

a. This is a continuing contract, as authorized by Section 10 of the River and Harbor Act of September 22, 1922 (33 U.S. Code 621). The payment of some portion of the contract price is dependent upon reservations of funds from future appropriations, and from future contribution to the project having one or more non-federal project sponsors. The responsibilities of the Government are limited by this clause notwithstanding any contrary provision of the "Payments to Contractor" clause or any other clause of

this contract.

b. The sum of **\$100,000** has been reserved for this contract and is available for payments to the Contractor during the current fiscal year. It is expected that Congress will make appropriations for future fiscal years from which additional funds together with funds provided by one or more non-federal project sponsors will be reserved for this contract.

c. Failure to make payments in excess of the amount currently reserved, or that may be reserved from time to time, shall not entitle the Contractor to a price adjustment under the terms of this contract except as specifically provided in paragraphs f and i below. No such failure shall constitute a breach of this contract, except that this provision shall not bar a breach-of-contract action if an amount finally determined to be due as a termination allowance remains unpaid for one year due solely to a failure to reserve sufficient additional funds therefore.

d. The Government may at any time reserve additional funds for payments under the contract if there are funds available for such purpose. The Contracting Officer will promptly notify the Contractor of any additional funds reserved for the contract by issuing an administrative modification to the contract.

e. If earnings will be such that funds reserved for the contract will be exhausted before the end of any fiscal year, the Contractor shall give written notice to the Contracting Officer of the estimated date of exhaustion and the amount of additional funds which will be needed to meet payments due or to become due under the contract during that fiscal year. This notice shall be given not less than 45 nor more than 60 days prior to the estimated date of exhaustion.

f. No payments will be made after exhaustion of funds except to the extent that additional funds are reserved for the contract. The Contractor shall be entitled to simple interest on any payment that the Contracting Officer determines was actually earned under the terms of the contract and would have been made except for exhaustion of funds. Interest shall be computed from the time such payment would otherwise have been made until actually or constructively made, and shall be at the rate established by the Secretary of the Treasury pursuant to Public Law 92-41, 85 STAT 97, as in effect on the first day of the delay in such payment.

g. Any suspension, delay, or interruption of work arising from exhaustion or anticipated exhaustion of funds shall not constitute a breach of this contract and shall not entitle the Contractor to any price adjustment under the "Suspension of Work" clause or in any other manner under this contract.

h. An equitable adjustment in performance time shall be made for any increase in the time required for performance of any part of the work arising from exhaustion of funds or the reasonable anticipation of exhaustion of funds.

i. If, upon the expiration of sixty (60) days after the beginning of the fiscal year following an exhaustion of funds, the Government has failed to reserve sufficient additional funds to cover payments otherwise due, the Contractor, by written notice delivered to the Contracting Officer at any time before such additional funds are reserved, may elect to treat his right to proceed with the work as having been terminated. Such a termination shall be considered a termination for the convenience of the Government.

j. If at any time it becomes apparent that the funds reserved for any fiscal year are in excess of the funds required to meet all payments due or to become due the Contractor because of work performed and to be performed under the contract during the fiscal year, the Government reserves the right, after notice to the Contractor, to reduce said reservation by the amount of such excess. (EFAR 52.232-5000)

SC-4 CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS (DEC 1991)

a. Upon obtaining the drawings and specifications, the Contractor shall:

- (1) Immediately check the specifications and all drawings;
- (2) Compare the specifications and all drawings and verify the figures before laying out the work;
- (3) Promptly notify the Contracting Officer of any discrepancies; and
- (4) Be responsible for any errors which might have been avoided by complying with this paragraph (b).

b. Large scale drawings shall, in general, govern small scale drawings. Figures marked on drawings shall, in general, be followed in preference to scale measurements.

c. Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the contractor from performing such omitted or misdescribed details of the work, but shall be performed as if fully and correctly set forth and described in the drawings and specifications.

d. The work shall conform to the specifications and the contract drawings identified on the following, all of which are available in the office of the District Engineer, U.S. Army Engineer District, Philadelphia, Room 643, Wanamaker Building, 100 Penn Square East, Philadelphia, PA 19107. Drawings are titled: "Beachfill, Absecon Inlet to Great Egg Harbor Inlet, Atlantic City and Ventnor City, Atlantic County, New Jersey" and have the drawing numbers, subtitles, and dates as indicated on Drawing No. 58545. (DFARS 252.236-7001)

The Reference Drawings listed on Drawing No. 58545 are also available for use by the Contractor.

SC-5 PHYSICAL CONDITIONS (APR 1984)

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor. (FAR 52.236-4)

a. The indications of physical conditions on the contract drawings are the result of site investigations by surveys. Samples of materials to be dredged for beachfill were obtained by using vibracore samplers.

b. Weather Conditions. The site of the work is in the open ocean and is exposed to storms. However, safe refuge from the ocean is available in Great Egg Harbor which is immediately adjacent to the work site. It is believed that work can be performed during all seasons of the year except during winter months when ice and storm conditions may interfere with dredging operations. Complete weather records and reports may be obtained

from the local U.S. Weather Bureau Office nearest to the work site. The Contractor shall satisfy himself as to the hazards likely to arise from weather conditions during the construction period.

c. Channel Traffic. Traffic in the work area consists of ocean going and commercial fishing, sport fishing vessels, U.S. Coast Guard vessels, and recreational craft. The traffic and vessels using Absecon and Great Egg Harbor Inlets may interfere with dredging operations.

d. Obstruction of Channel. The Government will not undertake to keep the channel free from vessels or other obstructions, except to the extent of such regulations if any, as may be prescribed by the Secretary of the Army, in accordance with the provisions of Section 7 of the River and Harbor Act approved 8 August 1917. The Contractor will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. The Contractor shall request the U.S. Coast Guard to issue a Notice to Mariners for each work assignment advising navigation interests that the Contractor's dredging plant will be operating in the area. The Contractor shall submit each such request to the U.S. Coast Guard, MSO/Group Philadelphia, 1 Washington Avenue, Philadelphia, PA 19147-4395. The Contractor shall furnish a copy of each request to the Contracting Officer not less than five days prior to the start of dredging. Each request shall contain the approximate time required for completion of dredging. Upon completion of dredging, the Contractor shall promptly remove his plant, including ranges, buoys, piles and other marks placed by him under the contract in navigable waters and on shore.

e. Navigation Aids. The Contractor shall not relocate or move any aids to navigation that have been established by the U.S. Coast Guard. If it becomes necessary to have any aid to navigation moved in order to complete dredging operations under this contract, the Contractor shall notify the U.S. Coast Guard at least 15 days prior to the desired date for movement of the aid. All requests shall be made in writing to: Commander (OAN), Fifth Coast Guard District, 431 Crawford Street, Portsmouth, VA 23704. A copy of each request shall be furnished to the Contracting Officer.

f. Transportation Facilities. The work site is accessible from the New Jersey Garden State Parkway and the Atlantic City Expressway. The Contractor shall be responsible for all investigations of load carrying capacities of bridges and roadways.

g. Location. Absecon Island is located on the Atlantic Ocean coast of New Jersey in Atlantic County.

h. Laying of Submerged Pipelines and Obstruction of Channel. If it becomes necessary in the performance of this contract to use a submerged pipeline, the Contractor shall notify the Contracting Officer in advance of the scheduled placement of the pipeline. If the submerged line is to be placed across a navigable channel, the Contractor shall submit a request for approval at least ten working days (Sundays and holidays excluded) prior to the desired closure date, to the U.S. Coast Guard, MSO/Group Philadelphia, 1 Washington Avenue, Philadelphia, PA 19147-4395. A copy of each request shall be furnished to the Contracting Officer. This request shall contain the following information:

(1) Location (Channel Centerline Stationing) and depth (over the top of

- the pipeline) at which the submerged line will be placed;
- (2) The desired length of time the channel is to be closed;
 - (3) The date and hour placement or removal will commence;
 - (4) The date and hour of anticipated completion; and
 - (5) The name and telephone number of the person to be contacted for information and response to any emergency condition.

The Coast Guard has indicated that the requirements of navigation may make it necessary to establish times other than those requested. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS PLANS WITH THE COAST GUARD SUFFICIENTLY IN ADVANCE OF THE PLANNED CLOSING TO PREVENT DELAY TO THE DREDGING OPERATIONS AND COMPLY WITH THE COAST GUARD REQUIREMENTS.

i. Bridge to Bridge Radio Telephone Equipment. In order that radio telephone communication may be with passing vessels, all dredges engaged in work under the contract shall be equipped with and operate bridge-to-bridge radio telephone equipment. The radio telephone equipment shall operate on VHF Channel 13 (156.65 MHz) with low power output having a communication range of approximately ten miles. The frequency has been approved by the Federal Communication Commission.

j. Survey control description sheets are included as Section 00845 of this contract.

k. Magnitude of the Contract Work. The estimated value of the contract work is over \$10,000,000.

l. Vibracore logs representative of the material to be dredged under this contract are shown on the contract drawings.

m. New Jersey Shore Protection Study, Brigantine Inlet to Great Egg Harbor Inlet, Absecon Island, Final Feasibility Report and Final Environmental Impact Statement, dated August 1996, are available for inspection in the Philadelphia District Office, Wanamaker Building, 100 Penn Square East, Philadelphia, PA. Arrangements for inspection of these documents shall be made by contacting Mr. Keith Watson, Engineering Management Branch, telephone number (215) 656-6287.

SC-6 DAMAGE TO WORK

The responsibility for damage to any part of the permanent work shall be as set forth in the clause of the contract entitled "Permits and Responsibilities". However, if, in the judgement of the Contracting Officer, any part of the permanent work performed by the Contractor is damaged by flood or hurricane, which damage is not due to the failure of the Contractor to take reasonable precautions or to exercise sound engineering and construction practices in the conduct of the work, the Contractor shall make the repairs as ordered by the Contracting Officer and full compensation for such repairs will be made at the applicable contract unit or lump sum prices as fixed and established in the contract. If, in the opinion of the Contracting Officer, there are no contract unit or lump sum prices applicable to any part of such work, an equitable adjustment pursuant to Contract Clause entitled "Changes," will be made as full compensation for the repairs of that part of the permanent work for which there are no applicable contract unit or lump sum prices. Except as herein

provided, damages to all work (including temporary construction), utilities, materials, equipment and plant shall be repaired to the satisfaction of the Contracting Officer at the Contractor's expense regardless of the cause of such damage. (CENAP)

SC-7 LAYOUT OF WORK (APR 1965 OCE)

The Contractor shall lay out its work from Government-established survey controls, the description of which are shown on the contract drawings, and shall be responsible for all measurements in connection therewith. The Contractor shall furnish, at its own expense, such stakes, templates, platforms, equipment, range markers and labor as may be required in laying out any part of the work from the triangulation stations and bench marks established by the Government. The Contractor shall be responsible for executing the work to such lines and grades as may be established or indicated by the Contracting Officer. It shall be the responsibility of the Contractor to maintain and preserve all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through its negligence prior to their authorized removal, they may be replaced by the Contracting Officer at his discretion. The expense of replacement will be deducted from any amounts due or to become due to the Contractor. The Contractor shall promptly remove all stakes and markers at the completion and acceptance of work, as directed by the Contracting Officer. (CENAP)

SC-8 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least forty (40) percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government. (FAR 52.236-1)

SC-9 ENVIRONMENTAL LITIGATION (1974 NOV OCE)

a. If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a Subcontractor at any tier not required by the terms of the contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a Subcontractor at any tier other than as required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the SUSPENSION OF WORK clause of this contract. The period of such suspension, delay, or interruption shall be considered unreasonable, and an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) as provided in that clause, subject to all the provisions thereof.

b. The term "environmental litigation", as used herein, means a lawsuit alleging that the work will have an adverse effect on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment. (CENAP)

SC-10 SIGNAL LIGHTS (FEB 1983)

The Contractor shall display signal lights and conduct his operations in accordance with the General Regulations of the Coast Guard governing lights and day signals to be displayed by towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipe lines, and day signals to be displayed by vessels of more than 65 feet in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working in navigable channels, as approved by the Commandant, U.S. Coast Guard with respect to vessels on the high seas (33 CFR 81 App. A), vessels in inland waters (37 CFR 84 and 33 CFR 88), as applicable. (DAEN-PRP Ind dtd 12 Sep 83)

SC-11 QUANTITY SURVEYS (APR 1984)

a. Quantity surveys shall be conducted, and the data derived from these surveys shall be used in computing the quantities of work performed and the actual construction completed and in place.

b. The Contractor shall conduct the original and final surveys and make the computations based on them. The Contractor shall conduct the surveys for any periods for which progress payments are requested and shall make the computations based on these surveys. All surveys conducted by the Contractor shall be conducted under the direction of a representative of the Contracting Officer, unless the Contracting Officer waives this requirement in a specific instance.

c. Promptly upon completing a survey, the Contractor shall furnish the originals of all field notes and all other records relating to the survey or to the layout of the work to the Contracting Officer, who shall use them as necessary to determine the amount of progress payments. The Contractor shall retain copies of all such material furnished to the Contracting Officer. (FAR 52.236-16)

SC-12 INSPECTION (APR 1965)

The inspectors will direct the maintenance of the gauges, ranges, location marks and limit marks in proper order and position; but the presence of the inspector shall not relieve the Contractor of responsibility for the proper execution of the work in accordance with the specifications. The Contractor will be required:

a. To furnish, on the request of the Contracting Officer or any inspector, the use of such boats, boatmen, laborers, a part of the ordinary and usual equipment and crew of the dredging plant as may be reasonably necessary in inspecting and supervising the work.

b. To furnish, on the request of the Contracting Officer or any inspector, suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant and to and from the borrow areas.

Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and the cost thereof will be deducted from any amounts due or to become due the Contractor. (CENAP)

SC-13 ACCOMMODATIONS AND MEALS FOR GOVERNMENT INSPECTORS (1965 APR OCE)

a. The Contractor shall furnish regularly to Government inspectors on board the dredge or other craft upon which they are employed a suitable separate room for office and sleeping purposes. The room shall be fully equipped and maintained to the satisfaction of the Contracting Officer; it shall be properly heated, ventilated, and lighted, and shall have a desk which can be locked, a comfortable bed and chair for each inspector, and washing conveniences. The entire cost of the Contractor for furnishing, equipping and maintaining the foregoing accommodations shall be included in the contract price. If the Contractor fails to meet these requirements, the facilities referred to above will be secured by the Contracting Officer, and the cost thereof will be deducted from payments to the Contractor.

b. If the Contractor maintains on this work an establishment for the subsistence of his own employees, he shall, when requested, furnish to inspectors employed on the work, and to all Government agents who may visit the work on official business, meals of a quality satisfactory to the Contracting Officer. The meals furnished will be paid for the Government at a rate of \$5.00 per person for each meal. (CENAP)

SC-14 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE (March 1995)

a. This clause does not apply to terminations. See 52.249-5000, Basis for Settlement of Proposals, and FAR Part 49.

b. Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by the Contractor or sub-contractor at any tier shall be based on actual cost data for each piece of equipment, or groups of similar serial and series, from which the Government can determine both ownership and operating costs from the Contractor's accounting records. When both ownership and operating costs cannot be determined, for any piece of equipment, or groups of similar serial and series, from the Contractor's accounting records, costs for that equipment shall be based upon the applicable provisions of EP 1110-1-8, "Construction Equipment Ownership and Operating Expense Schedule," Region I. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the Contracting Officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retrospective pricing, the schedule in effect as of the time work was performed shall apply.

c. Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d)(ii) and FAR 31.205-36. Rates for equipment rented from an organization under common control, lease-purchase arrangements and sale-leaseback arrangements will be determined using the schedule except that actual costs will be used for equipment leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees.

d. When actual equipment costs are proposed and the total amount of the pricing action exceeds the small purchase threshold, the Contracting Officer shall request the Contractor to submit either certified cost or pricing data, or partial/limited data, as appropriate. The data shall be submitted on Standard Form 1411, "Contract Pricing Proposal Cover Sheet." (EFARS 52.231.5000)

Note #1: The small purchase threshold is \$100,000.

Note #2: By submitting cost or pricing data, the Contractor grants to the Contracting Officer or an authorizing representative the right to examine those books, records, documents and other supporting data that will permit evaluation of the proposed equipment costs. This right shall extend for two years after expiration of contract performance. After price agreement the Contractor shall certify that the equipment costs or pricing data submitted are accurate, complete and current.

SC-15 PERFORMANCE EVALUATION OF CONTRACTOR

a. As a minimum, the Contractor's performance will be evaluated upon final acceptance of the work. However, interim evaluation may be prepared at any time during contract performance when determined to be in the best interest of the Government.

b. The format for the evaluation will be DD 2626, and the Contractor will be rated either outstanding, satisfactory, or unsatisfactory in the areas of Contractor Quality Control, Timely Performance, Effectiveness of Management, Compliance with Labor Standards, and Compliance with Safety Standards. The Contractor will be advised of any unsatisfactory rating, either in an individual element or in the overall rating, prior to completing the evaluation, and all Contractor comments will be made a part of the official record. Performance Evaluation Reports will be available to all DOD Contracting offices for their future use in determining Contractor responsibility, in compliance with DFARS 236.201(c)(1). (CENAP)

SC-16 INSURANCE REQUIREMENTS

Evidence of the following types of insurance shall be provided to the Contracting Officer prior to commencement of work and shall be maintained through the period of performance: **Contractor shall co-insure the state of New Jersey, the City of Atlantic City, and the City of Ventnor City (if Option 4 is awarded) under General Liability Insurance, as noted below in paragraph (a).**

a. General Liability Insurance (Comprehensive form of policy): Bodily Injury Liability - **\$2,000,000** per occurrence.

In addition, the Contractor shall co-insure the State of New Jersey and the City of Atlantic City (and Ventnor, if Option 4 is awarded) under their General Liability Insurance. Any additional premiums incurred to accomplish this shall be included as Base Bid Line Item. No. 10 (or Bid Line Item No. 21 if Option 4 is awarded).

b. Automobile Liability Insurance (Comprehensive form of policy): Bodily Injury Liability - \$200,000 per person and \$500,000 per accident. Property Damage Liability - \$20,000 per accident.

c. Workmen's Compensation and Employer's Liability Insurance: Compliance with applicable workmen's compensation and occupational disease statutes is required. Employer's liability coverage in the minimum amount of \$100,000 is also required.

d. Applicable Marine Casualty Insurance and appropriate Marine Workmen's Compensation Insurance.

SC-17 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (OCT 1989)

a. This clause specifies the procedure for determination of time extensions

for unusually severe weather in accordance with the Contract Clause entitled: "Default (Fixed-Price Construction)". In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

- (1) The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.
- (2) The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

b. The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities. For the purpose of this contract, unusually severe weather is defined as daily precipitation equal to or exceeding 0.5 inches and/or maximum daily temperature not exceeding 32 degrees F.

**MONTHLY ANTICIPATED ADVERSE WEATHER DELAY
WORK DAYS BASED ON (7) DAY WORK WEEK**

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
8	6	3	2	2	2	3	3	2	2	3	4

c. Upon acknowledgment of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor shall record on the daily CQC report, the occurrence of adverse weather and resultant impact to normal scheduled work. Actual adverse weather days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled work day. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph b. above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the contract clause entitled: "Default (Fixed Price Construction)". (ER 415-1-15)

-- End of Section --

SECTION 00875

SURVEY DATA FORMAT

PART 1 SURVEY DATA FORMATS

1.1 Distance offset from Baseline Format (Comma Delimited)

7202.13	Station in feet (Do not include "+")
s sfl	Program requirement (Shall be the same for all stations)
58,5.9	Offset Right Landward, Elevation
50,6.3	"
30,7.5	"
17,6.0	"
10,4.6	"
5,4.0	"
-15,1.7	Offset Left Seaward, Elevation
-25,0.7	"
-40,-0.8	"
-50,-0.9	"
-100,-1.1	"
-250,-0.4	"
-600,-0.7	"
-1500,-3.2	"
E	End of Cross section
7729.45	Station in feet (Do not include "+")
s sfl	Program requirement (Shall be the same for all stations)
Etc.	

1.2 Easting, Northing, and Elevation Format or XYZ Format(Comma Delimited)

7202.13	Station in feet (Do not include "+")
382475.74,30975.42,-37.3	Easting, Northing, and Elevation
382475.85,30974.85,-37.3	"
382476.06,30973.78,-37.4	"
382476.16,30973.25,-37.4	"
382476.28,30972.59,-37.5	"
382476.38,30972.10,-37.5	"
382476.50,30971.45,-37.4	"
382476.60,30970.98,-37.6	"
382476.73,30970.35,-37.4	"
382476.83,30969.84,-37.6	"
382476.96,30969.22,-37.3	"
382477.07,30968.68,-37.5	"
382477.20,30968.06,-37.3	"
382477.30,30967.52,-37.4	"
382477.40,30966.88,-37.2	"
382477.48,30966.32,-37.1	"
7729.45	Station in feet (Do not include "+")
382475.74,30975.42,-37.3	Easting, Northing, and Elevation
382475.85,30974.85,-37.3	"
Etc.	

1.3 BMAP Free Format

Profile:,AC 00 021210 00400	Line Name; AC for Atlantic City (V for Ventnor); 00 for Line Number; Date; Station Number of points in cross section
# Pts:,20	
X,Z1	
827.4000,9.6200	Offset Distance from baseline, Elevation
840.3000,8.6100	"
848.6000,6.6000	"
859.7000,5.4900	"
871.4000,4.2900	"
883.3000,3.1700	"
894.1000,2.4200	"
906.4000,1.6700	"
918.6000,0.6100	"
929.8000,-0.6700	"
942.9000,-1.8200	"
955.3000,-2.7400	"
956.0000,-2.8600	"
967.8000,-3.0100	"
980.0000,-2.9900	"
992.4000,-3.1800	"
1004.3000,-3.6000	"
1016.5000,-3.6900	"
1028.4000,-4.2000	"
1047.8000,-4.4200	"

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.1 SCOPE OF SECTION

This section presents a general description of the work to be accomplished under this contract on Absecon Island, between Absecon Inlet and Great Egg Harbor Inlet located in Atlantic County, New Jersey.

1.2 DESCRIPTION OF WORK

The contract work consists of a Base Bid to place approximately 3,100,000 cubic yards of beachfill in Atlantic City, New Jersey. The Base Bid extends, as indicated on the contract drawings, from Station 0+00 to a taper ending at approximately Station 190+00. The contract work also consists of three separate options (Options 1, 2, and 3) to place an additional 250,000 cubic yards of beachfill, per option awarded, in Atlantic City.

Option 4 is to place 1,310,000 cubic yards of beachfill in Ventnor City. Option 4 work extends from Station 190+00 (taper created under Base Bid shall be filled to achieve full template elevation) to Station 283+46. Two separate options (Options 5 and 6) are included to place an additional 100,000 cubic yards of beachfill, per option awarded, in Ventnor City.

The Base Bid and Option 4 work include, in addition to beachfill: the demolition of various timber piles; the extension of stormwater outfalls including pipe support systems; the construction of pedestrian, vehicle, and handicap dune crossovers; planting dune grass; providing sand fence; and, the relocation of various existing structures to accommodate the new beachfill and dunes.

The borrow area for the beachfill material is located north east of the project location, in the Absecon Inlet.

1.3 REQUIRED ORDER OF WORK

The beachfill shall be placed to the required template beginning at the northeast end of the project and proceeding to the southwest end of the project.

1.4 WORK HOURS

The Contractor may work 24 hours per day, 7 days per week, to complete the contract work. However, the Contractor shall be required to comply with local codes regarding noise at all times during the contract period. The Contractor shall be required to equip his land-based equipment with noise suppression equipment if so directed by the COR.

1.5 EXISTING UTILITIES

The existing utility locations shown on the contract and reference drawings are approximate and not complete. The Contractor is responsible for field verifying all existing utility locations, including those not shown on the drawings.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

SECTION 01500

TEMPORARY CONSTRUCTION

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work covered by this section consists of furnishing all labor, materials, plant and equipment, and performing all operations required for the construction of storage areas and service facilities needed for execution and completion of the work. Also included is the establishment of local contacts. Other work included in this section consists of providing Contractor and Government field offices, safety fence, security fence, and project and safety signs.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

NEW JERSEY DEPARTMENT OF TRANSPORTATION (NJDOT)

NJDOT Specifications	(1989 Edition) Standard Specifications for Road and Bridge Construction
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1.3 COORDINATION WITH LOCAL OFFICIALS

The Contractor shall establish contacts and coordinate his activities throughout the contract period with the following local officials:

Point of Contact	Company Name and Address	Phone Number
Mr. Jerry L. Kilby, P.E. City Engineer	City of Atlantic City Office of the City Engineer 1301 Bacharach Blvd Atlantic City, NJ 08401	609-347-5360
Mr. Robert W. Levy Chief Atlantic City Beach Patrol	City of Atlantic City	609-347-5312
Mr. Richard Carter, P.E. City Engineer	City of Ventnor 600 N. Rt. 9 P.O. Box 246 Cape May Courthouse, NJ 08210	609-465-6007
Mr. William Nelphi Emergency Management Coordinator	City of Ventnor	609-823-7918

1.4 CONTRACTOR ACCESS

Access to the work areas is available in the locations indicated on the drawings. The Contractor shall obtain all permits and coordinate fully with

the local officials when it is necessary to cross the boardwalk. Any materials required to establish or stabilize access points for vehicle use shall be provided and removed by the Contractor. The Contractor shall be responsible for protecting all existing structures from damage throughout the entire contract, and shall maintain all access points in accordance with Section 01355 ENVIRONMENTAL PROTECTION. Any additional parking that the Contractor requires, outside the work limits, shall be coordinated directly with the appropriate local officials.

1.5 ACCESS RESTRICTIONS

Utilities and structures exist on the landward side of existing dunes throughout the project. The Contractor is prohibited from operating in these areas except where absolutely necessary to complete the contract work, e.g. for construction of crossovers. This access is subject to the approval of the COR. The COR may disapprove this access if deemed unnecessary to complete the contract work.

1.6 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. See Section 01330 SUBMITTAL PROCEDURES for all procedures related to the submission of submittals.

The following shall be submitted:

SD-07 Certificates

Temporary Facilities Layout; G, COR.

The Contractor shall submit to the Contracting Officer for approval prior to start of work, his plans showing the layout of all temporary facilities including material storage areas, staging areas and the proposed alignment of all safety and security fencing to be used for this contract. The temporary facilities layout shall also show the locations of all Contractor access points to be used for the contract work.

PART 2 PRODUCTS

2.1 GOVERNMENT FIELD OFFICE

The Contractor shall furnish a Government project office for the length of the contract within 1/4 mile of the work area. The office shall have a minimum floor area of 840 square feet, locking doors, and partitioned restroom facilities. The office shall have sufficient lighting to supply 150 foot-candles at the desk top level and shall be supplied with 110 volt and 220 volt electrical outlets as required for heating, air conditioning, lighting, water cooler, and other accessories. The exterior of the office shall be equipped with flood lights to provide security lighting during hours of darkness. Weekly janitorial services shall be supplied during normal working hours. The Contractor shall provide potable water (hot and cold), provide for treatment of sewage, and provide permanent electric and telephone services, all in accordance with applicable local municipal, county and State codes. If a trailer is provided, it shall be new or recently renovated to a like-new condition subject to the approval of the

Contracting Officer.

2.1.1 Office Equipment

The following office equipment shall be provided by the Contractor for the Government field office:

- a. Two desks having 60-inch by 30-inch tops, with lockable drawers; two swivel chairs; and two tables with 60-inch by 30-inch laminated tops;
- b. One 96-inch by 48-inch conference table with ten chairs;
- c. Telephones: Two cellular telephones with unlimited calling area and message capability, and, three telephone lines, one each for each computer and one for the fax machine, as specified below for the computers and fax machine;
- d. Two fire resistant, four-drawer, lockable legal size filing cabinet, two sets;
- e. Shelf set, two shelves high, each measuring 12-inch deep by 3-feet long, one per desk;
- f. Three waste baskets;
- g. Electric water cooler and bottled water service for the life of the contract;
- h. Vertical filing plan rack for two sets of 28-inch by 40-inch plans each rack;
- i. Copier, Konica Model 3290 desk top copier, or approved equal, including adequate supplies and service agreement;
- j. Fax Machine, Xerox Model N58, or approved equal, with dedicated telephone line, adequate supplies and fax machine service agreement;
- k. Two portable two-way marine radios with chargers, Motorola Triton MP+, or approved equal, and shall operate on the Contractor's working frequencies;
- l. Two Personal Computers, Pentium IV, with a clock speed of at least 1.8 GHz, 256 megabyte RAM, 10 gigabyte hard disk drive, a 56k bps fax/modem, 10/100 Ethernet card, and a laser jet printer. Two dedicated telephone lines shall be provided, one for each computer. The following software shall be included: MS Windows 2000 Operating System with SP3;
- m. Countertop microwave oven, with digital display, turntable, interior light, and a minimum 0.6 cubic feet capacity;
- n. Compact refrigerator, with 1.58 cubic foot capacity, and ice tray;

NOTE: All office equipment shall be in new or like new condition. Computers shall be shipped to the following address:

U.S. Army Corps of Engineers
Information Management Office

100 Penn Square East
Wanamaker Building
Philadelphia, PA 19107

Upon completion of loading the computers with Government furnished software, the Contractor shall provide for transportation of the computers from the Philadelphia District office to the field offices at the project site.

2.2 SAFETY FENCE

Temporary safety fence shall be 4-foot high plastic fencing, color orange. Fence posts shall meet the requirements of Section 907.02 of the NJDOT Specifications, and all other required accessories as recommended by the fence manufacturer for a complete installation.

2.3 SECURITY FENCE

Security fence shall be 8-foot high chain-link fencing with steel or aluminum posts, top and bottom rails, locking gates, and all other required accessories as recommended by the fence manufacturer for a complete installation.

PART 3 EXECUTION

3.1 STAGING AND STORAGE AREAS

Upland staging areas and material storage areas on the beach are available and their locations are indicated on the contract drawings. The storage areas on the beach, adjacent to the outfall extension work locations, are to be used for storage for the outfall extension work only. Upon completion of that work in a particular location, these storage areas shall be **sifted clean of debris so that there is at least two feet of clean sand left in place.**

3.2 CONTRACTOR'S PROJECT OFFICE

The Contractor shall establish at the site of the work a project office equipped and staffed to efficiently conduct the work under this contract and provide essential information to the Contracting Officer or its authorized representative. The Contractor shall keep at all times at its office a copy of all drawings, specifications, and other pertinent information, and shall at all times give the Contracting Officer access thereto. The Contractor's office shall be equipped with a desk, chair, copying machine, and telephone facilities which shall be available for use by the Contracting Officer.

3.3 GOVERNMENT FIELD OFFICE

3.3.1 General

The Contractor shall provide and maintain a field office for the sole use of the Contracting Officer's representatives at the location indicated on the contract drawings. The office shall be complete and ready for occupancy not later than 15 days after receipt of notice to proceed, or prior to the transport of any equipment on site. The Government field office shall remain in place 30 days after the final demobilization.

3.3.2 Utilities

The Contractor shall provide hot and cold potable water, provide for treatment of sewage, and provide permanent electric and telephone services, all in accordance with applicable local municipal, county and state codes. All utility costs arising from the use of the office, including telephone cost, shall be borne by the Contractor.

3.3.3 Janitorial Services

The Contractor shall provide all janitorial supplies and services for the office facilities to include as a minimum, weekly sweeping, dusting, emptying of waste baskets, trash collection, servicing of toilets, mopping of all floors, sterilization of toilet seats and monthly waxing of all tile floors and washing of windows. The Contractor shall also provide for snow plowing of the parking area, shoveling of walkways, and major maintenance to the office and its utilities.

3.4 SECURITY FENCE

The Contractor shall erect a security fence to enclose the Contractor's project office, the Government field office, and the Contractor's upland staging area(s). The Contractor's upland staging area(s) shall be lighted during hours of darkness. This fence shall enclose and shall include appropriate gates with locks for both vehicles and employees. Posts shall be installed at maximum 10-foot intervals in the ground. Installation of all security fencing materials shall be in accordance with the fence manufacturer's printed instructions.

3.5 SAFETY FENCE

The Contractor shall erect and maintain throughout the contract period a temporary safety fence around all material storage areas located on the beach and around beachfill outlet pipe work areas. Temporary safety fencing shall be erected to safeguard the public and prevent any public access to the storage and work areas on the beach. The fence shall be removed and the area along the fence line shall be restored to its original condition at the conclusion of construction operations.

3.6 PROJECT AND SAFETY SIGNS

The Contractor shall provide and erect no later than 10 days from notice to proceed at the location designated by the Contracting Officer, the project and safety signs shown on the sketches attached to this section.

The project sign shall include the following project sponsors:

State of New Jersey Department of Environmental Protection
City of Atlantic City
City of Ventnor (If Option 4 is Awarded)

In addition, the Contractor shall include the Philadelphia District's website address on the project sign, **list the respective city officials, and state that part of the funding for the project is being provided for by the respective city, all** in a manner and as directed by the COR.

The Contractor shall remove and relocate the project and safety signs as the project progress from city to city. The Contractor shall erect these signs at the locations designated by the Contracting Officer.

3.7 REMOVAL AND RESTORATION

Removal of all temporary construction and restoration of the work site and access points upon completion of the contract shall be in accordance with the requirements of Section 01355 ENVIRONMENTAL PROTECTION.

3.8 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for work performed under this section and all costs in connection therewith shall be included in the costs of all the bid items.

-- End of Section --

SECTION 01720

SURVEY REQUIREMENTS

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work covered by this section consists of furnishing all labor, materials, plant and equipment, and performing all operations required in conducting before- and after-dredging surveys of the beachfill and borrow area.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 1110-2-1003 (Jan. 2002) Hydrographic Survey Manual

EM 1110-1-1005 (31 Aug 1994) Topographic Surveying Manual

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. See Section 01330 SUBMITTAL PROCEDURES for all procedures related to the submission of submittals.

NOTE: Any submittals classified as "SD-01 Preconstruction Submittals" require approval prior to mobilization to the contract work site. All other submittals, classified as "SD-02" through "SD-11," require approval prior to commencing the particular task to which the submittal is associated.

SD-07 Certificates

Qualifications; G,DO.

Provide qualifications of the independent licensed surveyor(s) for land and hydrographic surveying.

Pre-Placement Condition Surveys; G DO.

The pre-placement condition surveys shall be submitted in accordance with Paragraph "Pre-Placement Condition Survey Data Submittal" no later than 21 days prior to the start of beachfill operations.

Before- and After-Dredging Surveys of Borrow Area; G,DO.

A copy of the before-dredging soundings shall be submitted to the Contracting Officer not more than 15 days prior to the start of dredging the borrow area. After-dredging surveys of the borrow

area shall be completed within 10 days of completion of dredging. The borrow area survey shall be performed as specified in Special Clause: QUANTITY SURVEYS and as specified herein. Data shall be submitted as specified herein.

Before- and After-Beachfill Surveys; G,DO.

The before-beachfill cross-sections shall be obtained not more than ten days prior to the after-beachfill cross-sections. After-beachfill cross-sections shall be obtained not more than two days following placement and final grading of beachfill. The surveys shall be performed as specified in Special Clause: QUANTITY SURVEYS and as specified herein. Data shall be submitted as specified herein.

SD-03 Product Data

DGPS Positioning.

Records of position during dredging shall be recorded on disk every 15 minutes and submitted to the Contracting Officer on a daily basis.

Surveying Procedures and Equipment; G,DO.

All surveying procedures, methods, and equipment for landward beach surveys, hydrographic surveys, and tidal monitoring, shall be reviewed and approved by the Government Survey Point of Contact prior to the start of any type of surveying work.

1.4 DIFFERENTIAL GLOBAL POSITIONING SYSTEM(DGPS) EQUIPMENT

The Contractor must have a differential GPS, in accordance with the requirements for project classifications for "Navigation and Dredging Support Surveys" as referenced in the Corps of Engineers Hydrographic Survey Manual EM 1110-2-1003. The Contractor shall provide real time positioning of the dredge on a computer screen, during dredging, and have the capability of playback in 15 minute intervals. The position must be recorded on a disk every 15 minutes and submitted to the Contracting Officer on a daily basis.

1.5 HYDROGRAPHIC SURVEY EQUIPMENT

Hydrographic Surveys will be conducted to meet USACE Performance Standards **for Navigation and Dredging Support**, as defined in the Hydrographic Surveying Manual EM 1110-2-1003. Surveys will be performed by single transducer sounding techniques, multi-beam sweep type surveys or both. Bottom soundings will be obtained by the single beam fathometer operating at a frequency ranging from 190 to 210 Khz. When utilizing multi-beam technology, the operating frequency will range from 180 to 250 Khz. All fathometers will be calibrated following procedures outlined in the referenced EM.

1.6 QUALIFICATIONS OF SURVEYOR

All surveys must be performed by an independent survey company. All land surveys shall be performed under the direction and supervision of a Professional Licensed Surveyor with 5 years current experience in beach profiling. All hydrographic surveys shall be conducted under the direction

and supervision of a Surveyor certified by the American Congress on Surveying and Mapping (ACSM) as an In-Shore Hydrographer, or by a Professional Licensed Surveyor with a minimum of 5 years documented experience in a hydrographic surveying environment similar in nature to the surveys required under this Contract. Surveyors shall be New Jersey licensed surveyors.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL SURVEY REQUIREMENTS

The Contractor shall be responsible for conducting all surveys required to demonstrate that the construction is in compliance with the specified tolerances and the lines, grades, and elevations shown on the drawings.

3.5 PRE-PLACEMENT CONDITION SURVEYS

3.2 General

The beachfill area conditions are dynamic in nature. Conditions existing during the preparation of this contract may not be an accurate representation of the beachfill area conditions existing at the commencement of beachfill operations. Consequently, the Contractor shall obtain pre-placement condition survey cross sections. The pre-placement condition surveys shall be taken between Stations 00+95 and 275+95, within 30 days after the Notice to Proceed. Option work may be awarded to compensate for large and/or differential changes in existing conditions. The surveys shall meet the requirements as specified above in the paragraph entitled "GENERAL SURVEY REQUIREMENTS."

The cross sections shall be obtained at the locations of the cross section surveys shown on the contract drawings and shall progress from Station 00+95 to Station 275+95. The survey cross sections shall be long lines, and shall extend from the survey baseline to a minimum 2,500 feet seaward. The origin of the new profile lines shall be the survey baseline, as shown on sections on the contract drawings. Data from previous surveys will be provided to the Contractor in advance of the pre-placement surveys. The Contractor shall overlay the previous surveys with pre-placement surveys as a quality control measure.

3.3 Pre-Placement Condition Survey Data Submittal

All pre-placement condition survey data shall be submitted directly to the Philadelphia District Office at the following address: U.S. Army Corps of Engineers, Philadelphia District, Design Branch, ATTN: CENAP-EN-DC (Gizella Geissele), Wanamaker Building, 100 Penn Square East, Philadelphia, PA 19107. The survey data shall be submitted immediately following the completion of the surveys, but not later than 21 days prior to the start of beachfill operations.

3.4 BEFORE- AND AFTER-BEACHFILL SURVEYS

Before-beachfill surveys shall be conducted immediately prior to placement

of the beachfill, and after-beachfill surveys shall be conducted immediately following final placement of beachfill, as specified in the Paragraph entitled: "SUBMITTALS". The survey cross-sections shall extend 1,200 feet from the baseline. The survey cross-sections shall be taken at the locations indicated in Section 00890. Elevations along the cross-sections shall be taken at a maximum of 10 foot intervals, with additional elevations taken as necessary to describe all hydrographic features. The topographic portion of the cross-sections shall include elevations taken at a maximum spacing of 10 foot intervals with additional elevations taken at all slope breaks and all other topographic features.

3.5 BEFORE- AND AFTER-DREDGING SURVEYS OF THE BORROW AREA

The borrow area surveys shall be conducted immediately prior to and after dredging the borrow area. The surveys shall be conducted along the same lines, and at the same intervals, as indicated on the borrow area surveys provided in the contract drawings.

3.6 CONTROL

Survey control will be established from the existing survey baseline control description data information as shown on the contract drawings. The Contractor shall utilize North American Vertical Datum (NAVD) 1988 as the vertical datum for elevation and depth references for all cross sections, and shall be responsible for obtaining necessary ocean tide height measurements during the survey periods to assure that accurate adjustments are made to the observed depths to account for tidal variations in water level. The Contractor shall utilize New Jersey State Plane Coordinate System (NAD 1983) as the horizontal reference datum.

3.7 TOLERANCES

The landward portion of the profile lines shall be surveyed utilizing surveying procedures and methodology that meet or exceed accuracy tolerances of ± 0.20 feet in the vertical and ± 0.50 feet in the horizontal, with a 95% confidence level. All topographic or land based surveys performed in conjunction with this Contract shall meet all criteria outlined in EM 1110-1-1005. Horizontally, the vessel will be kept to within ± 25 ft of the cross section line. In areas where obstructions are present, complete notes shall be taken explaining the offset.

3.8 PROCEDURES, METHODS, AND EQUIPMENT

3.8.1 Approvals Required

All surveying procedures, methods and equipment for landward beach surveys, hydrographic surveys and tidal monitoring (if applicable), shall be reviewed and approved by the Government Survey Point of Contact prior to the conduct of any type of surveying work. This review process shall also include the review and acceptance of the Surveyor's Qualifications, as defined in the Paragraph entitled: "Qualifications of Surveyor".

3.8.2 Overlap of Survey Techniques

The minimal overlap between the land and offshore surveys, or any other change in survey technique, shall be 50 feet (including at least 10 points). Horizontally, overlap points must be kept within ± 25 ft of the matched method.

3.8.3 Hydrographic Surveying Techniques

The hydrographic or offshore portion of beach profile lines shall be surveyed using a towed sea sled, direct measurement methodologies or hydrographic techniques with Real Time Kinematic/On the Fly (RTK/OTF) capabilities. If a towed sea sled method is used, the horizontal and vertical positioning shall be obtained by utilizing either Differential GPS, with RTK/OTF capabilities to obtain orthometric heights in the required datum, NAVD88. The Contractor shall use the latest NGS separation model to ensure accuracy levels are met. Update rates from the GPS receiver to the data collection processor shall be collected at a minimum of 5 Hz. to a maximum interval of 20 Hz, to minimize the latency error. The DGPS data shall be augmented by heave/pitch/roll information to smooth the vertical position in the post-processing of the data. The GPS base station shall be located within 6.2 miles (10 km) of the hydrographic line being surveyed. The land and hydrographic portions of the survey shall be conducted at tidal stages to ensure overlap is obtained. The OTF system must be capable of tracking all satellites in view, minimum of five. Mask angles are not to be less than 15 degrees.

3.9 DATA SUBMISSION

3.9.1 General

Horizontal distances of each survey point shall be referenced as negative seaward from the established Corps baseline point, and positive landward from the baseline. All survey data shall be recorded digitally on CD-ROM in ASCII text format. All profile survey data shall be submitted to the Government in all of the following formats:

- a. Raw and edited HYPACK project files and data collector files.
- b. ASCII files **for distance offset from baseline format.**
- c. BMAP Free Format ASCII files using distances offset from the baseline (X) and elevation (Z1), as shown on attached sheets.
- d. One ASCII file containing the following for all profile lines: profile ID, survey origin, and grid azimuth with respect to the horizontal reference coordinate system.
- e. Plotted cross section drawings in AutoCAD 2000 format for each cross section survey taken. The grid spacing shall be 10 feet in the vertical and 100 feet in the horizontal. Each drawn cross section shall show the station that it was taken from.
- f. ASCII files XYZ format. Sample files for Paragraph b, c, and f format are included in Section 00875.**

All borrow area survey data shall be submitted to the Government in the following format:

Data for the pre-dredge and post-dredge Borrow Area, shall be provided in digital XYZ format and HYPACK files, both raw and edited. No contours required. **Sample file for XYZ format is included in Section 00875.**

3.9.2 Timely Submission of Survey Data

Survey data, unless specified otherwise, shall be submitted to the COR within 5 workdays of completion of the surveys.

3.10 MEASUREMENT AND PAYMENT

The work specified in this section for surveying will not be measured for payment. All costs in connection therewith shall be considered incidental to those Bid Items to which the surveys are incidental.

-- End of Section --

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION		CONTRACTOR																
Beachfill, Absecon Island, Absecon Inlet to Great Egg Hrbr Inlet		T R A N S M I T T A L N O	S P E C S E C T	DESCRIPTION ITEM SUBMITTED	P A R A G R A P H	G O V T C L A S S I F I C A T I O N	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS	
(a)	(b)						(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)			(l)
		00700		SD-01 Preconstruction Submittals														
				Payroll Basic Records & Statements of Compliance		FIO												
				Affirmative Action Compliance Plan		FIO												
				Dredging Progress Schedule		FIO												
				Certificate of Insurance		FIO												
		00800		SD-01 Preconstruction Submittals														
				Copy of Request to USCG for Notice to Mariners		FIO												
				Copy of Request to USCG for Movement of Navigation Aids		FIO												
				Copy of Request to USCG for Placing Submerged Pipelines		FIO												
				Across Channel														
				Evidence of Insurance		FIO												
		01060		SD-01 Preconstruction Submittals														
				Qualifications		G DO												
				Accident Prevention Plan		G DO												
				SD-07 Certificates														
				Activity Phase Hazard Analysis		G DO												
				Plan														
				Safety Meeting Reports		FIO												
				Accident Reports		FIO												
				OSHA 300 Log		FIO												
				Floating Plant Inspection		G DO												

SUBMITTAL REGISTER													CONTRACT NO.						
TITLE AND LOCATION															CONTRACTOR				
Beachfill, Absecon Island, Absecon Inlet to Great Egg Hrbr Inlet																			
A C T I V I T Y N O	T R A N S M I T T A L N O	S P E C S E C T	DESCRIPTION ITEM SUBMITTED	P A R A G R A P H	G O V T C L A S S I F I C A T I O N	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/	APPROVING AUTHORITY			MAILED TO CONTR/	DATE RCD FRM APPR AUTH	REMARKS		
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	A C T I O N C O D E	DATE OF ACTION		(k)	(l)	(m)				(n)	(o)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)		
	01320		SD-07 Certificates		G COR														
			Photography Plan		G DO														
			Pre-Construction Photographs		G DO														
			Construction Photographs		G DO														
			Post-Construction Photographs		G DO														
	01325		SD-07 Certificates		G COR														
			Preliminary Project Schedule		G COR														
			Final Project Schedule		G COR														
	01330		SD-07 Certificates		G COR														
			Review and Complete Submittal Register (ENG Form 4288)		G COR														
			Update Submittal Register (ENG Form 4288)		G COR														
	01350		SD-07 Certificates		*														
			Diving Plan		*														
			Diving Operations Manual		*														
			Air Quality Certifications		*														
			Daily Logs		*														
	01355		SD-04 Samples		G COR														
			Hopper Dredge Basket or Screens		G DO														
			Environmental Protection Plan		G DO														
			Government Observer																
			Accommodations Plan																
	01500		SD-07 Certificates																
			Temporary Facilities Layout		G COR														
	01720		SD-07 Certificates																

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION		CONTRACTOR																
Beachfill, Absecon Island, Absecon Inlet to Great Egg Hrbr Inlet		T R A N S M I T T A L N O	S P E C S E C T	DESCRIPTION ITEM SUBMITTED	P A R A G R A P H	G O V T C L A S S I F I C A T I O N	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS	
(a)	(b)						(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)			(l)
		01720		Qualifications		G DO												
				Pre-Placement Condition Surveys		G DO												
				Before- and After-Dredging		G DO												
				Surveys of Borrow Area														
				Before- and After-Beachfill		G DO												
				Surveys														
				SD-03 Product Data														
				DGPS Positioning		FIO												
				Surveying Procedures and Equipment		G DO												
		02373		SD-03 Product Data														
				Thread	2.2	G DO												
				SD-04 Samples														
				Quality Assurance Samples and Tests		G DO												
				SD-07 Certificates														
				Geotextile														
		02390		SD-07 Certificates	2.1	G DO												
				Borrow Area		G COR												
				Debris Prevention Plan		G COR												
				Work Plan		G COR												
				Work Plan for Relocation or Reconstruction of Existing Structures		G COR												
				Pumpout Plan		G COR												
				Accident Prevention Plan		G DO												

SUBMITTAL REGISTER													CONTRACT NO.						
TITLE AND LOCATION															CONTRACTOR				
Beachfill, Absecon Island, Absecon Inlet to Great Egg Hrbr Inlet																			
ACTIVITY NO	TRANSMITTAL NO	SPEC	DESCRIPTION ITEM SUBMITTED	PARAGRAPH#	GOVT CLASSIFICATION	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/			APPROVING AUTHORITY			MAILED TO CONTR/	DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION	DATE OF ACTION	DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION				
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)		
		02390	Grade Stake Recovery Plan		G COR														
			Test Reports		G COR														
			Equipment Data		G DO														
		02400	SD-02 Shop Drawings																
			Outfall Extensions		G DO														
			SD-03 Product Data																
			Flexible Coupling		G COR														
			Ductile Iron Pipe		G COR														
			Welded Wire Fabric		G COR														
			SD-07 Certificates																
			Detailed Work Plan		G DO														
			Flexible Coupling and Clamps		G COR														
			Ductile Iron Pipe, Elbows, Tees, and Fittings		G COR														
			Rubber Gaskets		G COR														
			Brick		G COR														
			Welded Wire Fabric		G COR														
			Outfall Extension		FIO														
			Brick Manhole Surveys		FIO														
			Formwork		G COR														
		02446	SD-07 Certificates																
			Sand Fence		FIO														
			Dune Grass Plants and Seed		FIO														
		02500	SD-02 Shop Drawings																
			Handicap, Vehicle, and		G DO														
			Pedestrian Crossovers																

CONTRACT NO.

SUBMITTAL FORM, Jan 96

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SECTION 02390

BEACHFILL

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work covered by this section consists of furnishing all labor, materials, plant and equipment and performing all operations required for removal of the beachfill material from the borrow area located offshore and placing the material on the beach within the limits shown on the drawings.

1.2 REFERENCES

The following publications form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN FOREST & PAPER ASSOCIATION (AF&PA)

AF&PA T01 (1991; Supple 1993; Addenda Apr 951997;
Supple T02) National Design Specification
for Wood Construction

AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC)

AITC TC Manual (1994) Timber Construction Manual

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI B18.22.1 (1981) Plain Washers

ASTM INTERNATIONAL (ASTM)

ASTM A 153 (2001a) Zinc Coating (Hot-Dip) on Iron and
Steel Hardware

ASTM A 307 (2000) Carbon Steel Bolts and Studs,
60,000 PSI Tensile Strength

ASTM A 563 (2001) Carbon and Alloy Steel Nuts

ASTM D 422 (1963; R 1998) Particle-Size Analysis of
Soils

AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA)

AWPA C2 (2000) Lumber, Timbers, Bridge Ties, and
Mine Ties Preservative Treatment by
Pressure Process

AWPA P5 (2001) Standards for Waterborne
Preservatives

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (Latest Rev.) Safety and Health

Requirements Manual

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

33 CFR 156 (1992) Navigation and Navigable Waters,
Oil and Hazardous Material Transfer
Operations

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. See Section 01330 SUBMITTAL PROCEDURES for all procedures related to the submission of submittals.

The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Certificates

Borrow Area; G COR.

The Contractor shall provide a map of the borrow area, to scale, with the Contractor-assigned stationing and range information. This map will be used by the Government to identify the location of dredging on a daily basis.

Debris Prevention Plan; G,COR.

The Contractor shall devise a means and a monitoring program/method to ensure that debris is not deposited upon the beach and buried by beachfill material.

Work Plan; G,COR.

The Contractor shall submit to the Contracting Officer for approval prior to the start of work its plan for removing the material from the borrow area and placing it in the areas shown on the contract drawings. The plan shall show the pipeline layout, details of ramps over the pipeline, safety fence locations, personnel to be used to patrol closed beach area, and signage.

Work Plan for Relocation or Reconstruction of Existing Structures; G,COR.

The Contractor shall submit to the Contracting Officer for approval, a dedicated work plan for each location where existing structures require either relocation or reconstruction. The Contractor shall include the labor, equipment and methods proposed to be utilized to complete each relocation or reconstruction.

Pumpout Plan; G,COR.

If a hopper dredge is used for the contract work, the Contractor shall submit to the Contracting Officer for approval prior to the start of work its plan for pumpout of excavated material from the dredge to the beachfill area. The plan shall include the description, dimensions, and location of the proposed mooring facility.

Accident Prevention Plan; G,DO.

The Contractor shall submit to the Contracting Officer for approval prior to the start of work its plan for accident prevention. The plan shall comply with all provisions of Contract Clause: ACCIDENT PREVENTION and shall include the protection and safety of the Contractor's personnel, as well as, the general public using the adjacent beach areas. The plan shall show details of any barricades, warning signs, and equipment the Contractor intends to use in the implementation of the accident prevention plan.

Grade Stake Recovery Plan; G,COR.

Contractor shall submit a plan describing his procedures that will be used to ensure that all grade stakes placed on the beach during construction are subsequently removed.

Test Reports; G,COR.

Copies of all laboratory and field test reports shall be submitted to the Contracting Officer within one week after completion of each test.

Equipment Data; G,DO.

Equipment data shall be submitted to the Contracting Officer, for approval prior to the start of work, indicating that the equipment soil pressure for the grading equipment used within the Underwater Hazard Areas around the shipwreck and building ruins, is below that specified in Paragraph "WORK WITHIN THE UNDERWATER HAZARD AREAS".

1.4 BORROW MATERIAL

1.4.1 Location and Character of Borrow Material

The location of the borrow area and the limits to which removal of material is permitted is shown on the drawings. The character of the material to be used for beachfill is believed to be as indicated by the results of Government-conducted sampling. Vibracore sample grain size distribution curves are included as Section 00855 of this specification. Vibracore logs are shown on the drawings. The locations of vibracore holes within and around the borrow area are shown on the drawings.

1.4.2 Required Order of Work

The borrow area shall be dredged in the order indicated on the contract drawings.

1.4.3 Maximum Allowable Depth for Removal

The maximum allowable depths for removal of material from various areas in the borrow area are as indicated on the borrow area drawing. Unless specifically directed by the Contracting Officer, no payment will be made for material removed from below these depths or from outside the borrow area limits.

1.4.4 Nature of Borrow Areas

The surveys of the borrow area shown on the drawings were taken between 14 April and 14 May 2003 and are the most recent surveys available. The borrow area conditions are dynamic in nature and the exact size and location of

the ebb shoal will change over time. Therefore the soundings shown on the drawings may not be an accurate representation of the depths and conditions existing at the commencement of dredging operations under this contract.

1.4.5 Before- and After-dredging Surveys

Before-dredging surveys shall be conducted immediately prior to dredging of the borrow area, and, after-dredging surveys shall be conducted immediately following final dredging of the borrow area, as specified in Section 01720 SURVEY REQUIREMENTS and Special Clause: QUANTITY SURVEYS.

1.5 SITE CONDITIONS

Bidders are expected to examine the site of the work in accordance with Contract Clause: SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK to determine the conditions affecting their operations. The entire work site is designated as a hard hat area in accordance with EM 385-1-1. Throughout the dredging operations the Contractor shall maintain close coordination with the U.S. Coast Guard.

1.5.1 Limits of Work

The Contractor shall note the limits of work shown on the contract drawings. Existing underground utilities and structures are located immediately outside these limits of work in particular areas. Consequently, the Contractor shall restrict all of the contract work and his equipment to within those indicated limits of work. In the areas where boardwalk is located within the Contractor's limit of work, the Contractor will not be allowed to stage equipment on the boardwalk.

1.5.2 Storage Areas on the Beach

Storage areas on the beach are for use as specified in Section 01500 TEMPORARY CONSTRUCTION.

1.6 RESTRICTIONS ON BEACHFILL OPERATIONS

The Contractor shall close the beach, utilizing temporary fencing, barricades, and signage, in maximum 1000 foot sections to allow placement of beachfill. Acceptance of beachfill will be made in 1000 foot sections. After acceptance of a section, the Contractor shall advance the closed section of beach. All other sections of the beach, except storage areas, are to remain open to the general public. Ramps over the pipeline must be provided at all street ends and at boardwalk entrances to the beach to allow public access to the ocean. The Contractor shall ensure that any movement of pipeline or equipment is done, with recognition to the public presence, in accordance with the approved Accident Prevention Plan. ***All beach closings shall be coordinated with the Beach Patrol and Fire Department to assure access by emergency vehicles.***

1.6.1 Dedicated Public Safety Personnel

The Contractor shall provide a minimum of two public safety persons to patrol the perimeter of the closed beach area and direct the public to not enter the construction area. They shall have no other responsibilities. These dedicated public safety personnel shall be provided between 8:00 am and 5:00 pm, during active construction operations.

1.7 RESTRICTIONS ON WORK

1.7.1 Stormwater Outfalls

The Contractor shall maintain drainage of all existing and new outfalls constructed under this contract at all times throughout the duration of the contract.

1.7.2 Underwater Hazard Areas

The Contractor shall exercise extreme caution when working in the Underwater Hazard Areas, as shown on the contract drawings. These areas consist of a shipwreck of an iron steam-driven vessel from the 1920's and an old stone and mortar bathhouse. When conducting beachfill operations, the Contractor shall adhere to the requirements specified in this section. Any damage to these structures will be repaired at the Contractor's expense.

1.7.3 Debris on Beach

The Contractor shall propose, and submit for approval, a method to ensure that debris (either dredged from the borrow area or deposited by the Contractor's personnel) is not deposited upon the beach and buried by beachfill material. A proposed monitoring program shall be included, using the Contractor's personnel, to monitor the proposed debris-prevention method's results. Debris includes cobbles, clay balls, shells, and man-made trash and materials.

1.7.4 Booster Pump

If Option 4, and/or Option 5, and/or Option 6 is awarded, the Contractor may not use a booster pump within 500' of the city limits of Ventnor, New Jersey.

1.8 FUEL OIL HANDLING

The Contractor shall assure that all fuel oil transfer operations to or from his plant comply with all applicable Federal, State, and municipal laws, codes, and regulations. The Contractor shall incorporate in his accident prevention plan, required under Paragraph "Accident Prevention Plan", sufficient information to demonstrate compliance with 33 CFR 156 and all other applicable laws, codes, and regulations.

PART 2 PRODUCTS (Not Applicable)

2.1 BOAT DAVITS

2.1.1 Lumber and Timbers

Lumber and timbers shall be the species and grades as listed in AF&PA T01. Design of members and fastenings shall conform to AITC TC Manual. Lumber and timbers shall be treated in accordance with AWPA C2 with waterborne preservatives listed in AWPA P5 to a retention level as follows:

- a. 0.25 pcf intended for above ground use.
- b. 0.40 pcf intended for ground contact.

2.1.2 Fasteners

Fasteners shall be ASTM A 307, Grade A, hot-dipped galvanized. Washers and nuts shall hot-dipped galvanized conforming to ANSI B18.22.1 and ASTM A 563, respectively. Hot-dip galvanizing shall be in accordance with ASTM A 153.

PART 3 EXECUTION

3.1 REQUIRED ORDER OF WORK

The Contractor shall place beachfill to the required template beginning at the northeast end of the project and proceeding to the southwest end of the project.

3.2 DEMOLITION OF EXISTING PILES

The Contractor shall remove the existing piles from the locations indicated on the contract drawings. The piles shall be removed to a minimum of one foot below existing grade (prior to beachfill) in that location. At the Contractor's option, the piles may be pulled out and removed completely. NOTE: The piles to be removed for the existing outfall pipe supports must be pulled out and removed completely. The piles shall be removed from the work site and disposed of at the Contractor's expense. If the Contractor encounters additional piles at locations other than those indicated on the contract drawings, the Contracting Officer may direct their removal pursuant to the Contract Clause entitled "Changes."

3.3 REMOVAL OF GEOTUBES

Existing geotubes shall be removed as specified on the contract drawings and shown on the reference drawings. Geotextile from this removal operation shall be removed from the work site (and shall not be buried) and disposed of at the Contractor's expense. For bidding purposes the Contractor shall assume that 2000 linear feet of **geotubes need to be removed. The dimensions of the geotubes are as shown on the reference drawings.**

3.4 MAINTENANCE OF DRAINAGE OUTFALLS

The Contractor shall establish and maintain drainage of all outfall pipes at all times throughout the entire contract. Prior to beachfill operations the ends of the outfalls will be posted, enabling them to be readily found after beachfill. Until the outfall ends are clear of material during beachfill operations and outfall extension work, all street drainage shall be maintained by the use of pumps. Any material removed from the end of the outfalls shall be placed above mean high water (+1.25 NAVD 88).

3.5 REMOVAL AND CONSTRUCTION OF BOAT DAVITS

The Contractor shall dismantle/demolish the existing boat davits and construct new boat davits, at the locations indicated on the contract drawings.

3.6 WORK WITHIN THE UNDERWATER HAZARD AREAS

Land-based equipment used for grading the beachfill material, that will operate within the Underwater Hazard Areas shall be of the type not to produce a soil pressure greater than 6 pounds per square inch. During grading of beachfill material, grading equipment shall not come in contact with the shipwreck or building ruins. Any damage to the shipwreck or

building ruins shall be repaired at the expense of the Contractor.

3.7 PLACEMENT OF BEACHFILL

3.7.1 General

Beachfill material shall be placed at the locations indicated on the contract drawings. Beachfill material shall be placed and shaped to the beachfill template lines, grades, slopes, and elevations shown on the drawings. There shall be no pronounced ridges or wash holes in the final grades and slopes unless otherwise indicated. A vertical tolerance of plus 0.2 feet will be permitted in the grades and slopes above elevation -2.9 NAVD 88 (mean low water). No minus tolerance will be permitted, except below elevation -2.9 NAVD 88 (mean low water) where the beachfill may be placed at a slope steeper, but not flatter, than the slopes shown on the drawings. The Contractor shall conduct his work operations so that no areas landward of the work limits shown on the drawings are disturbed. A spreader section shall be used at the discharge end of the pipeline for uniform distribution of the beachfill material. Land-based equipment shall be used for grading the beachfill material, except that placement and grading of material beneath existing beach structures shall be as specified in Paragraphs "Manual Placement of Beachfill Beneath Existing Beach Structures."

All material shall be hydraulically placed. If the Contractor stockpiles material and subsequently uses land-based equipment to move the material to its final position, the Contractor shall wait 24 hours before after-surveys are conducted of that area.

3.7.2 Manual Placement of Beachfill Beneath Existing Beach Structures

Placement and grading of beachfill material by hand, to the construction template, shall be required beneath existing beach structures, e.g. piers, boardwalk. The Contractor shall leave 2 feet of clearance between the top of the beachfill template and the bottom of the existing structural members supporting the decking. The Contractor shall protect the existing beach structures from damage. Placement of beachfill material beneath structures shall be done in a manner that minimizes the ponding of water. If ponded areas are created due to the Contractor's operations the Contractor shall pump these areas dry at no expense to the Government. Any structures damaged shall be repaired at the expense of the Contractor.

3.7.3 Placement of Beachfill Over Existing Structures

Existing structures shall be covered with sand to the template shown on the drawings.

3.7.4 Hydraulic and Hopper Dredges

All pipelines used with hydraulic dredges shall be kept in good condition at all times, and any leaks or breaks shall be promptly repaired. Material excavated by hopper dredge shall be loaded into bins or hoppers to overflow only and pumped directly to the beachfill area by a means which will prevent the loss of any material into the ocean. Special care shall be taken to assure that hoppers do not leak during any phase of the contract work.

3.7.5 Submerged Dredge Pipe

Barricades, warning signs, and lights shall be provided by the Contractor,

subject to the approval of the Contracting Officer as part of the accident prevention plan, for the protection and safety of the public using the adjacent beach areas. The beachfill dredge pipe shall be clearly marked with buoy signs or other signage approved by the Contracting Officer at a distance of 200 feet seaward of the low water line at all locations that the dredge pipe is landed. This sign shall warn the public of the location and danger of the submerged pipe. All barricades, warning signs, and lights shall be installed prior to the start of any work.

3.7.6 Removal of Stakes and Markers

The Contractor shall remove all stakes, markers, temporary fencing, burlap, piping, or other items used in the construction of the beach immediately after completion and before approval of an acceptance section, or as otherwise directed by the Contracting Officer. All stakes, markers, temporary fencing, burlap, piping, or other items used in the construction that become uncovered after approval of the acceptance section shall be removed immediately.

3.8 Dune Crossovers

Dune crossovers, regardless of type, shall be constructed and completed no later than one week after placement of beachfill at the crossover's location.

3.9 CONTRACTOR QUALITY CONTROL

3.9.1 Contractor Reports

The Contractor shall prepare and maintain Daily Report of Operations forms, and shall furnish signed copies thereof with the daily Quality Control Records required in Section 01450 CONTRACTOR QUALITY CONTROL to the Contracting Officer. Copies of the Daily Report of Operations forms to be used are included at the end of that Section. The Contractor shall indicate on these daily forms the location and depth of dredging in the borrow area. The location shall be easily located on the map of the borrow area provided as a submittal.

3.9.2 Samples and Testing

The Contractor shall obtain samples of beachfill material from the finished beach at 500 foot intervals not more than two days following placement and final grading of beachfill and have them tested for grain size distribution in accordance with ASTM D 422. All testing shall be performed by a Corps of Engineers approved laboratory as specified in Section 01450 CONTRACTOR QUALITY CONTROL. Samples shall be obtained at approximately elevation +7.25 NAVD 88. The results of each test shall be recorded on NAD Form 2087, a copy of which is included in Section 00865 of this contract. The Contractor shall also record on ENG Form 2087 the location of the dredge within the borrow area and the depth of dredging at the time of placement of the sand sampled. Test results shall be submitted to the Contracting Officer within one week after completion of the laboratory testing.

3.9.3 Form Preparation

Instructions regarding the preparation of all required forms will be provided at the Contractor Quality Control Coordination Meeting.

3.10 MEASUREMENT AND PAYMENT

3.10.1 Mobilization and Demobilization

All costs connected with the mobilization and demobilization of the Contractor's plant and equipment required for placement of beachfill will be paid for at the contract lump sum prices for these items as listed in the Bidding Schedule. Sixty percent (60%) of the lump sum price will be paid to the Contractor upon completion of his mobilization at the work site. The remaining forty percent (40%) will be included in the final payment for work under this contract.

3.10.1.1 Contractor Furnished Cost Data

In the event the Contracting Officer considers that the amount in these items (sixty percent) which represents mobilization, does not bear a reasonable relation to the cost of the work in this contract, the Contracting Officer may require the Contractor to furnish cost data to justify this portion of the bid price. Failure to justify such price to the satisfaction of the Contracting Officer will result in the payment of actual mobilization costs, as determined by the Contracting Officer, at the completion of mobilization. The payment of the remainder of these items will be included in the final payment under the contract. The determination of the Contracting Officer in these circumstances is not subject to appeal.

3.10.1.2 Mobilization and Demobilization Costs for Base Bid

All costs in connection with the mobilization and demobilization of the Contractor's plant and equipment as defined below shall be included in the contract lump sum price for Base Bid Item No. 1, "Mobilization and Demobilization of Plant and Equipment Required for Beachfill" as listed in the Bidding Schedule.

a. Mobilization shall include all costs for operations accomplished prior to commencement of actual beachfill placement; that is transfer of all plant and equipment to the work site, initial installation of pipelines, and all other incidentals in advance of beachfill placement operations.

b. Demobilization shall include general preparation for transfer of the plant and equipment to the Contractor's home or standby base, removal of pipelines, cleanup, and the transfer of plant and equipment to the home or standby base.

3.10.2 Placement of Beachfill

All beachfill material placed in the designated areas within the allowable tolerance will be measured for payment by the cubic yard in place on the beach. The total number of cubic yards placed will be computed by the average-end-area method from cross-section surveys obtained by the Contractor immediately before and after the beachfill operations as specified in Section 01720 SURVEY REQUIREMENTS and as required by Special Clause: QUANTITY SURVEYS. The volume so computed will be the pay quantity for the contract. A deduction of one cubic yard will be made from the pay quantity for every cubic yard of material removed from the maximum allowable depths indicated for each area of the borrow area. Any deductions will be based on before-dredging surveys conducted immediately prior to dredging the borrow area and after-dredging surveys conducted immediately following dredging of the borrow area. Payment for placing and grading the beachfill material will be made at the contract unit price per cubic yard for "Beachfill," Base Bid Item No. 2, and Options Bid Item Nos. 12, 13, 14,

15, 24, and 25 (if Options 1, 2, 3, 4, 5, and/or 6 are awarded). Payment for these Bid Items shall also include full compensation to the Contractor for maintaining outfall drainage, removal and construction of boat davits, removal of geotubes, performing all quantity surveys, providing public safety personnel, and performing all material testing required.

3.10.3 Demolition

The work specified herein for the demolition of existing piles at various locations will be measured for payment by the number of piles satisfactorily removed. All costs in connection therewith shall be included in the contract price per unit for "Demolition of Piles," Base Bid Item No. 3.

-- End of Section --

SECTION 02500

DUNE CROSSOVERS

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work covered by this section consists of furnishing all labor, materials, and equipment, and performing all operations required for the construction of pedestrian, vehicle, and handicapped dune crossovers, as specified herein and shown on the drawings.

1.2 REFERENCES

The following publications form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI B18.22.1 (1981) Plain Washers

ASTM INTERNATIONAL (ASTM)

ASTM A 153 (2001a) Zinc Coating (Hot-Dip) on Iron and Steel Hardware

ASTM A 307 (2000) Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength

ASTM A 563 (2001) Carbon and Alloy Steel Nuts

ASTM A 307 (2000) Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength

ASTM D 422 (1963, Rev. 1998) Particle-Size Analysis of Soils

ASTM D 1556 (2000) Density and Unit Weight of Soil in Place by the Sand-Cone Method

ASTM D 1557 (2000) Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/cu. ft. (2,700 kN-m/cu.m.))

ASTM D 2922 (1996e1) Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)

ASTM D 3017 (1996) Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)

AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA)

AWPA C2	(2000) Lumber, Timbers, Bridge Ties, and Mine Ties Preservative Treatment by Pressure Process
AWPA M4	(1999) The Care of Preservative-Treated Wood Products
AWPA P5	(2001) Standards for Waterborne Preservatives

SOUTHERN PINE INSPECTION BUREAU (SPIB)

SPIB-01	(1994; Supplements 8 thru 11) Grading Rules for Southern Pine Lumber
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NEW JERSEY DEPARTMENT OF TRANSPORTATION (NJDOT)

NJDOT Specifications	(1989 Edition) Standard Specifications for Road and Bridge Construction
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1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. See Section 01330 SUBMITTAL PROCEDURES for all procedures related to the submission of submittals.

The following shall be submitted:

SD-02 Shop Drawings

Handicap, Vehicle, and Pedestrian Crossovers; G DO.

The Contractor shall submit drawings which graphically show the details of the handicap, vehicle and pedestrian crossovers including materials, connections, and details of fabrication and installation. A typical drawing shall be submitted for all locations requiring a standard pedestrian crossover. A typical drawing shall be submitted for all locations requiring a modified pedestrian crossover. A separate shop drawing shall be submitted for each location requiring a beach patrol access crossover. A separate shop drawing shall be submitted for each location requiring a handicap crossover. A separate shop drawing shall be submitted for each location requiring a vehicle crossover. All shop drawings for modular crossovers (standard and modified pedestrian and beach patrol access) shall include the number and length of the units required.

Timber Stairs; G, DO.

The Contractor shall submit drawings which graphically show the details of the timber stairs including materials, connections, and details of fabrication and installation.

SD-03 Product Data

Materials for Handicap, Vehicle, and Pedestrian Crossovers and Timber Stairs; G,DO

The Contractor shall submit information describing the quality and performance of the materials proposed for all crossovers and stairs.

SD-06 Test Reports

Grain Size Distribution Curves; G,DO.

Grain size distribution curves shall be in accordance with ASTM D 422 and be submitted from the source(quarry) of the I-5 to be used on the vehicle dune crossovers.

SD-07 Certificates

Work Plans for Handicap, Vehicle, and Pedestrian Crossovers and Timber Stairs; G,DO.

The Contractor shall submit work plans for the construction and installation of the handicap, vehicle, and all types of pedestrian crossovers and timber stairs. The work plans shall include the labor, equipment, and methods to be used to fabricate and/or install the crossovers and stairs. Individual work plans shall be prepared for each location for each type of crossover.

PART 2 PRODUCTS

2.1 STANDARD AND MODIFIED PEDESTRIAN DUNE CROSSOVERS

The pedestrian dune crossovers shall consist of modular dune walkway units that are 42" wide sections constructed with Trex wood-polymer composite lumber and stainless steel connecting rods and fasteners, as manufactured by Mister Boardwalk, PO Box 789, Point Pleasant, New Jersey, 1-800-813-4050. The walkway sections shall be constructed with 5/4" by 6" slats with 1/2" spacing. The spacers shall be 1/2" tubular PVC. Each slat shall be equipped with three holes for connecting to other slats with three connecting rods. The walkway shall be equipped with "outboard" connectors for connecting adjacent walkway sections and shall be designed for heavy traffic. Sand fence shall be as specified in Section 02446 SAND FENCE AND DUNE GRASS.

2.2 BEACH PATROL STRUCTURE DUNE ACCESS

Beach patrol structure dune access crossovers shall be as specified above for standard and modified pedestrian dune crossovers.

2.3 VEHICLE DUNE CROSSOVERS

The vehicle dune crossovers shall be constructed utilizing a soil aggregate, designation I-5, conforming to Subsection 901.09 of the NJDOT Specifications. The soil aggregate shall have a gradation designation of I-5 as specified in Subsection 901.21, Table 901-2 of the NJDOT Specifications. Recycled materials are not acceptable. The underlying geotextile shall be as specified in Section 02373 GEOTEXTILE. The associated sand fence shall be as specified in Section 02446 SAND FENCE AND

DUNE GRASS. Lumber shall be treated in accordance with AWPA C2 with waterborne preservatives listed in AWPA P5 to a retention level as follows:

- a. 0.25 pcf intended for above ground use.
- b. 0.40 pcf intended for ground contact.

2.4 HANDICAP DUNE CROSSOVERS AND TIMBER STAIRS

2.4.1 Lumber and Timbers

Lumber and timbers shall be the Southern Yellow Pine, grade "dense standard decking" per SPIB-01. Lumber and timbers shall be treated in accordance with AWPA C2 with waterborne preservatives listed in AWPA P5 to a retention level as specified above for vehicle dune crossovers.

2.4.2 Lumber for Handrails, Side Rails and Top Rails

Lumber used for the handrails, side rails and top rails shall be **recycled plastic lumber**.

2.4.3 Fasteners

Fasteners shall be ASTM A 307, Grade A, hot-dipped galvanized. **Washers and nuts shall be hot-dipped galvanized conforming to ANSI B18.22.1 and ASTM A 563, respectively.** Hot-dip galvanizing shall be in accordance with ASTM A 153. Deck screws shall be weather guard-coated steel. **Handrail pipe caps shall be aluminum.**

PART 3 EXECUTION

3.1 STANDARD AND MODIFIED PEDESTRIAN DUNE CROSSOVERS

Existing handrails and posts shall be removed to the extent required where indicated on the contract drawings. Walkway sections shall be connected together per the fabricator's recommendations and instructions. The walkways shall be installed at the locations indicated on the contract drawings.

3.2 BEACH PATROL STRUCTURE DUNE ACCESS

Beach patrol structure dune access crossovers shall be constructed as specified above for standard and modified pedestrian dune crossovers.

3.3 VEHICLE DUNE CROSSOVERS

3.3.1 General

The vehicle dune crossover shall be constructed in the locations and in the manner indicated on the contract drawings. The geotextile shall be placed as specified in Section 02373 GEOTEXTILE.

3.3.2 Placing, Spreading, Moisture Control and Compaction

The material shall be placed in maximum 12 inch lifts and compacted to at least 90 percent laboratory maximum dry density as determined by the Modified Proctor test procedure as specified in ASTM D 1557. If the

material is too wet to facilitate proper compaction, it shall be removed and replaced or dried out by any method approved by the Contracting Officer. Placement of the material shall be made to the lines and grades shown on the contract drawings and compacted by the controlled use of the hauling and spreading equipment. Movement of the equipment shall be distributed as much as practicable over the surface to provide uniform compaction and complete coverage of the fill.

3.3.3 Testing

The Contractor shall be wholly responsible for furnishing material meeting the requirements specified herein, for placing the material within the limits of moisture suitable for proper compaction, and for compacting the materials in accordance with the requirements of this section. The Contractor is also responsible for performing laboratory tests as required to control the work and demonstrate compliance with material specifications. Testing shall be as specified in Section 01450 CONTRACTOR QUALITY CONTROL. Field in-place density shall be determined in accordance with ASTM D 2922. ASTM D 2922 results in a wet unit weight of soil and ASTM D 3017 shall be used to determine the moisture content of the soil. The calibration curves furnished with the moisture gauges shall also be checked along with density calibration checks as described in ASTM D 3017; the calibration checks of both the density and moisture gauges shall be made at the beginning of a job on each different type of material encountered and at intervals as directed by the Contracting Officer. When test results indicate, as determined by the Contracting Officer, that compaction is not as specified, the material shall be removed, replaced and recompacted to meet specification requirements. Tests on recompacted areas shall be performed to determine conformance with specification requirements. The following number of tests, if performed at the appropriate time, will be the minimum acceptable for each type operation.

- a. During the course of construction, if the source, appearance or performance of the crossover materials noticeably changes in the opinion of the Contracting Officer, the appropriate index testing, described herein, of the materials shall be repeated to ensure specification compliance and reestablish moisture/density relationships for compaction.
- b. Three compaction tests shall be performed in accordance with ASTM D 1557 for each type material used as crossover material to determine the optimum moisture and laboratory maximum density values.
- c. A minimum of two in-place nuclear density tests shall be performed per lift of material placed at each crossing.
- d. In-place densities shall be checked using ASTM D 1556 a minimum of one time during placement of the crossover materials for every 5 crossovers constructed. Additional checks shall be performed as requested by the Contracting Officer.

3.3.3.1 Action Required for Non-Compliance

Whenever testing specified in this Section indicates material non-compliance, the Contractor shall be required to remove all material not meeting the specification requirements. The Contracting Officer shall require as many additional tests as necessary to identify the limits of unsuitable material. No additional payment will be made for test required to determine the limits of unsuitable material nor for the cost of removal

and replacement with suitable material.

3.3.4 Associated Sand Fence

The sand fence shall be constructed as indicated on the contract drawings and in the manner specified in Section 02446 SAND FENCE AND DUNE GRASS.

3.4 HANDICAP DUNE CROSSOVERS AND TIMBER STAIRS

The handicap dune crossovers and timber stairs shall be constructed as indicated on the contract drawings. Immediately after cutting, notching and drilling all lumber and timbers, the lumber and timbers shall be treated as specified in AWP4 M4.

3.5 MEASUREMENT AND PAYMENT

3.5.1 Standard and Modified Pedestrian and Beach Patrol Access Dune Crossovers

The work specified in this section for the fabrication and installation of standard and modified pedestrian dune crossovers and beach patrol access dune crossovers shall be measured for payment by the number of these types of crossovers satisfactorily fabricated, installed, and accepted. Payment will be made at the contract price per unit for "Pedestrian and Beach Patrol Access Dune Crossovers," Base Bid Item No. 5, and Option 4 Bid Item No. 16 (if Option 4 is awarded). Payment shall include removal of existing handrails and posts, where required, and sand fence incidental to the construction of these dune crossovers.

3.5.2 Vehicle Dune Crossovers

The work specified in this section for the construction of vehicle dune crossover shall be measured for payment by the number of vehicle dune crossovers satisfactorily constructed and accepted. Payment will be made at the contract price per unit for "Vehicle Dune Crossovers," Base Bid Item No. 6, and Option 4 Bid Item No. 17 (if Option 4 is awarded).

3.5.3 Handicap Dune Crossovers

The work specified in this section for the construction of handicap dune crossovers shall be measured for payment by the number of handicap dune crossovers satisfactorily constructed and accepted. Payment will be made at the contract price per unit for "Handicap Dune Crossovers," Base Bid Item No. 7, and Option 4 Bid Item No. 18 (if Option 4 is awarded).

3.5.4 Timber Stairs

The work specified in this section for the construction of the timber stairs shall be measured for payment by the number of timber stairs satisfactorily constructed and accepted. Payment will be made at the contract price per unit for "Timber Stairs," Option 4 Bid Item No. 21 (if Option 4 is awarded).

-- End of Section --